AMENDMENTS TO THE CLAIMS

Listing of Claims

The following listing of claims replaces all previous listings or versions thereof:

1. (Currently amended) A method for detecting analytes comprising the steps of:

   a) incubating a sample with macromolecules, to each of which at least 2 molecules of the analyte to be detected in the sample are coupled;
   b) further incubating the sample with a solid carrier, to which capture molecules for the analyte to be detected are coupled;
   c) adding a fluorescence dye to stain the macromolecules; and
   d) detecting the analytes present in the sample by excitation of the fluorescence dye, wherein the presence of analyte in the sample will reduce the signal produced by binding of the macromolecule-bound analyte to the capture molecule coupled to the solid carrier.

2. (Currently amended) The method according to claim 1 comprising, after step c), a further step c') of removing the non-bound fluorescence dye from the solid carrier.

3. (Currently amended) A method for detecting analytes comprising the steps:

   a) incubating a sample with fluorescence-dye-marked macromolecules, to each of which at least 2 molecules of the analyte to be detected in the sample are coupled;
   b) further incubating the sample with a solid carrier, to which capture molecules for the analyte to be detected are coupled; and
   c) detecting analytes present in the sample by excitation of the fluorescence dye, wherein the presence of analyte in the sample will reduce the signal produced by binding of the macromolecule-bound analyte to the capture molecule coupled to the solid carrier.

4. (Currently amended) The method according to claim 3 comprising, after step a), a further step a') of removing the non-bound macromolecules.

5. (Previously presented) The method according to claim 1, wherein the macromolecules are nucleic acids, peptide nucleic acids, polyamino acids.

6. (Previously presented) The method according to claim 1, wherein the macromolecules are single-strand oligonucleotides of a length within the range from 40 to 80 nucleotides.

7. (Previously presented) The method according to claim 1, wherein the macromolecules are identical or non-identical.

8. (Previously presented) The method according to claim 1, wherein the analytes have a molecular weight of less than 5000 Dalton.

9. (Previously presented) The method according to claim 1, wherein the fluorescence dye is selected from the group of phenanthrenes, acridines, SYBR dyes or fluorophores.

10. (Previously presented) The method according to claim 1, wherein the solid carrier is permeable to light and the detection method is implemented by means of a transmitted-light method.

11. (Currently amended) A device comprising a light source fitted on one side of a solid carrier inserted into the device, ~~that~~ a filter disposed respectively between the light source and the solid carrier on the other side of the solid carrier, wherein the device is designed in such a manner that light passing through the solid carrier passes through an aperture into the human eye or into an optical instrument.

12. (Currently amended) The method according to claim 3, wherein the macromolecules are nucleic acids, peptide nucleic acids, and polyamino acids.

13. (Previously presented) The method according to claim 3, wherein the macromolecules are single-strand oligonucleotides of a length within the range from 40 to 80 nucleotides.

14. (Previously presented) The method according to claim 3, wherein the macromolecules are identical or non-identical.

15. (Previously presented) The method according to claim 3, wherein the analytes have a molecule weight of less than 5000 daltons.

16. (Previously presented) The method according to claim 3, wherein the fluorescence dye is selected from the group of phenanthrenes, acridines, SYBR dyes or fluorophores.

17. (Previously presented) The method according to claim 3, wherein the solid carrier is permeable to light and the detection is implemented by means of a transmitted-light method.